

National Earthquake Hazards Reduction Program

... a research and implementation partnership

Program Update

NEHRP Stakeholders' Presentation
April 17, 2006

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Presentation Outline

- Agency roles
- General background
- P.L. 108-360 overview
- Statutory program activities
- Technical priorities
- Leadership/management/budget initiatives
- Conclusions



NEHRP Agency Roles

Federal Emergency Management Agency (FEMA): Promote implementation of research results and better building practices by working with national standards and model building code organizations. Develop risk assessment tools and guidance and training to increase awareness and reduce multi-hazards risk. Support State, local, and regional efforts to develop plans and implement mitigation activities.

National Institute of Standards and Technology (NIST): Provide technical basis and critical tools—metrics, predictive models, and knowledge—for codes, standards, & practices for buildings, structures, and lifelines. Promote adoption of improved codes, standards, and practices via technical support for code development and evaluation, synthesis, and dissemination of research results. NEHRP Lead Agency.

National Science Foundation (NSF): Basic research in seismology, earthquake engineering, and social, behavioral and economic sciences. Operation of Network for Earthquake Engineering Simulation.

U.S. Geological Survey (USGS): Operate seismic networks. Develop seismic hazard maps. Coordinate post-earthquake investigations. Conduct targeted earth-science research.

NSF & USGS jointly support the Global Seismographic Network (GSN) – provides real-time seismic monitoring for earthquake detection and tsunami warning.



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Background

- NEHRP was initially established by P.L. 95-124, Earthquake Hazards Reduction Act of 1977.
- NEHRP is Federal Government's long-term program to reduce U.S. earthquake risks to life and property.
- NEHRP authorizes appropriation levels for the four principal agencies – FEMA, NIST, NSF, USGS.
- Congress typically reviews and reauthorizes NEHRP every 2-3 years.



P.L. 108-360

NEHRP Reauthorization Act of 2004

Overview

- **Enacted 25 October 2004.**
- **Followed thorough two-year review of NEHRP, including hearings by House Science Research Subcommittee and Senate Space, Science, and Transportation Subcommittee.**
- **Recognized that new mitigation technologies are being implemented slowly, while urban development has accelerated, resulting in significantly increased societal vulnerabilities.**
- **Reauthorized NEHRP for FY05-FY09 at average annual totals of about \$180M per year (an increase of \$75M per year from previous levels).**



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Statutory Program Activities

- **Develop effective measures for earthquake hazards reduction.**
- **Promote adoption of earthquake hazards reduction measures by Federal, State, & local governments; national standards & model code organizations; architects and engineers; building owners, and others with a role in planning and constructing buildings, structures, and lifelines through:**
 - grants, contracts, cooperative agreements, and technical assistance;
 - developing standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, & lifelines;
 - developing and maintaining a repository of information, including technical data, on seismic risk & hazards reduction.
- **Improve understanding of earthquakes and their effects on communities, buildings, structures, and lifelines, through interdisciplinary research involving engineering, natural sciences, and social, economic, and decisions sciences.**
- **Develop, operate, and maintain Advanced National Seismic Research and Monitoring System; George E. Brown, Jr. Network for Earthquake Engineering Simulation; and Global Seismographic Network.**



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Major New Technical Priorities

Congress strongly endorsed the priorities identified in the 2001-2005 NEHRP Strategic Plan, which was developed in partnership with the stakeholder community—private sector, state & local governments, and academia, including:

- Development and commercial application of performance-based seismic engineering tools, codes, standards, and practices (FEMA, NIST).
- Completion of USGS Advanced National Seismic System (ANSS).
- Operation and maintenance of and conduct of research using NSF George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES).
- Operation and maintenance of Global Seismographic Network (GSN) by USGS & NSF.



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Major New Leadership & Management Priorities

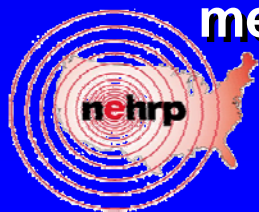
- **Establish Interagency Coordinating Committee.**
- **Establish Advisory Committee**
- **Develop updated Strategic Plan**
- **Develop Management Plan**
- **Develop Coordinated Interagency Budget and Annual Report to Congress**
- **NIST now lead agency for NEHRP**



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Interagency Coordinating Committee (ICC)

- Composed of directors of FEMA, NIST (**Chair**), NSF, & USGS, Office of Science & Technology Policy (OSTP), and Office of Management & Budget (OMB).
- Purpose: Oversee planning, management, & coordination.
- Responsible for developing and updating strategic and management plans, coordinated interagency budgets, and annual program reports.
- **Status:**
 - Held 1st ICC meeting April 6, 2006 – **very positive, with strong leadership consensus on way ahead.**
 - Executive Committee of senior ICC agency representatives met in August 2005 and February 2006.



Advisory Committee on Earthquake Hazards Reduction (ACEHR)

- **Purpose:** Assess trends and developments in science and engineering; program effectiveness; need for program revision; and program management, coordination, and implementation activities.
- **Composition:** At least 11 qualified members (no Federal employees) representing research and academic institutions, industry standards development organizations, state & local governments, and financial communities.
- **Congressional direction:**
 - ACEHR to report to NIST Director annually on its assessments.
 - ACEHR to consider recommendations of USGS Scientific Earthquake Studies Advisory Committee (SESAC).
 - ACEHR to have flexibility to report to Congress on program-related issues.

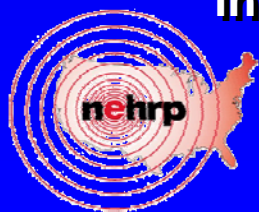


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Advisory Committee on Earthquake Hazards Reduction (ACEHR)

Current Activities

- Approach:
 - 11 members.
 - Ex-officio role of USGS SESAC Chair.
 - First 11 members to be on staggered 1, 2, and 3-yr terms.
 - Future members on 3-yr terms.
 - Public solicitation of nominations.
 - NIST Director to appoint committee from nominations received, in consultation with other agency directors.
- Status:
 - ICC approved moving ahead on 4/6/06.
 - Committee charter and membership solicitation now being staffed in DoC.



Strategic Plan

- 2006-2010 edition planned to be evolutionary, not revolutionary, keying on FEMA 383, *Expanding and Using Knowledge to Reduce Earthquake Losses: The National Earthquake Hazards Reduction Program Strategic Plan, 2001-2005*.
- Open, informal stakeholder discussion session at Quake '06.
- Formal request for community inputs issued in March 2006. Inputs to focus on basic question of what needs to be updated in FEMA 383.
Comment period closes May 26, 2006. Go to <http://www.nehrp.gov>.
- NEHRP agencies to use community inputs to update FEMA 383, creating new 2006-2010 Strategic Plan.
- Following initial draft of updated plan, community comment period will be provided, plan will be updated, reviewed by ACEHR, finalized, and released.
- Status: ICC approved this approach on 4/6/06.



Management Plan

- Viewed by NEHRP agencies as an “internal” document that will govern their operational activities.
- Annual plan to be developed in Spring 2006 as a cooperative effort among agencies.
- Plan will cover upcoming and following fiscal years.
- Key features:
 - Program milestones and performance metrics.
 - Milestones to implement Strategic Plan.
 - Milestones to fulfill statutory requirements (ICC, ACEHR, Annual Report, Consolidated Budget).
 - Milestones to operate NEHRP Secretariat.
- **Status:** ICC approved this approach on 4/6/06.



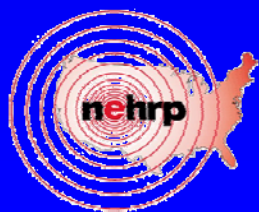
Coordinated Interagency Budget

- Ensures appropriate balance among “program activities” and consistent budget reporting to Congress.
- Coordinated NEHRP budget to be submitted to OMB at time established by OMB for agencies to submit annual budgets.
- Key issues:
 - Ensure budget requests are consistent with priorities in the NEHRP Strategic Plan and Administration Priorities, considering funding levels authorized by Congress.
 - Ensure integrity of budget data with NEHRP program goals and objectives: develop and use consistent criteria and activity-based data reporting format for informing Congress and stakeholders.
 - ICC to provide guidance to program agencies on preparation of budget requests (Senate Report 108-385): develop process for program-wide setting and coordination of budget priorities and plans, in addition to coordinated budget reporting.



Future Budget Planning

- **Administration Priorities established through work of NSTC Subcommittee on Disaster Reduction:**
 - Grand Challenges for Disaster Reduction, June 2005.
 - Grand Challenge Implementation Plan for Earthquakes (Draft), March 2006.
- **Priorities in NEHRP Strategic Plan and endorsed by Congress in the NEHRP Reauthorization Act of 2004.**
- **NIST is assigning priority to implement the industry R&D roadmap, ATC-57, *The missing piece: improving seismic design and construction practices*, to narrow the “research-to-practice gap.” Any new work will be closely coordinated with FEMA.**
- **NSF is assigning priority to research and NEES O&M to reflect the National Science Board-approved five-year cooperative agreement.**
- **USGS is assigning priority to improve the use of USGS information to reduce loss of life and property from catastrophic natural hazards including earthquakes.**



Lead Agency: NIST

- **Responsibilities:** Overall planning, coordination, and management.
- **Duties:**
 - Chair ICC.
 - Develop Strategic and Management Plans.
 - Provide guidance for agencies' annual budget preparations, developing coordinated interagency budgets that ensure program activity balance and compliance with plans.
 - Develop annual report, to be submitted at time of President's annual budget request to Congress.
 - Establish and support ACEHR.
 - Ensure program promotes implementing hazard reduction measures by Federal, State, & Local governments; standards & code organizations; practitioners; and others involved with planning and constructing buildings and lifelines.
 - Involve non-program Federal agencies as needed to assist.



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Lead Agency: NIST (Cont'd)

- Status:

- FY 06 funding for NEHRP Secretariat provided from existing agency budgets.
- NEHRP Program Office (*Secretariat*) created within NIST Building and Fire Research Laboratory.
- NEHRP Director brought on board as a full-time permanent staff member, with half-time admin ass't, February 2006.
- Established NEHRP web site: <http://www.nehrp.gov>.
- Future Secretariat plans will be consistent with budget.



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Conclusion

- 2004 Reauthorization of NEHRP was watershed event.
- Congress required program changes that increase interagency coordination, and, therefore, cooperation – **Congress wants the whole of NEHRP to be more than the simple sum of its parts.**
- Congress mandated higher level and broader federal involvement through the creation of ICC and ACEHR.
- The 2004 reauthorization presents an opportunity to facilitate interagency **synergies** that are needed to reduce the Nation's vulnerabilities to future major earthquakes even more effectively than in the past!
- Stakeholder interaction is a “must!”

Go to **<http://www.nehrp.gov>** !



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